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ABSTRACT

The ecological perspective suggests that distal socioeconomic status (SES) actually affects young children via the more proximate influences of parental beliefs and the quality of their home environments. A diverse sample of 189 kindergarten children, their families, and their schools provided data on SES indices, parental beliefs, the quality of their home environment, and the children's concept knowledge. For lower SES families, path analyses showed a strong influence of demographic factors, particularly parent education for mothers and family income for fathers, on the quality of their children's home environments and their children's cognitive development. For the higher SES families the influence of demographic factors in predicting the quality of their home environments and their children's cognitive development was reduced, and the influence of parental childrearing beliefs and the home environment was more apparent. The results suggest a threshold effect for family income. Once income and parents' education reach a sufficient level, the impact of these factors on the quality of the home environment and on children's development is reduced. (MDM)

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Kindergarten readiness: Ecological analysis of the effects of SES, parental beliefs, and the home environment.

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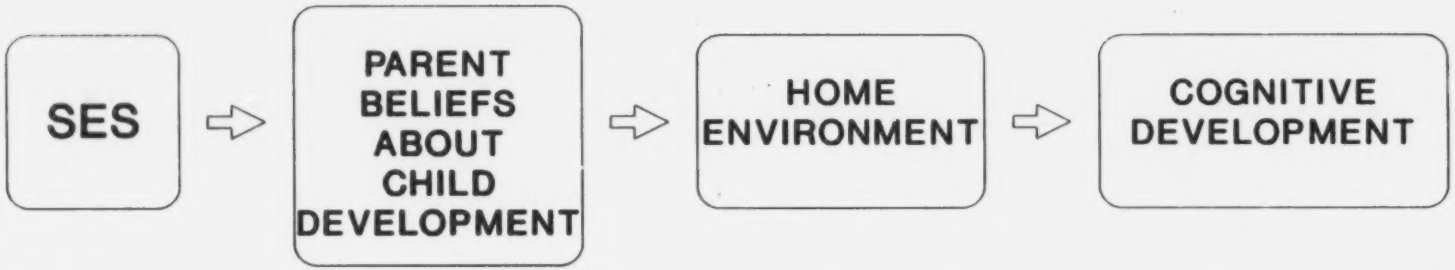
Abstract:

The ecological perspective suggests that distal SES actually affects young children via the more proximate influences of parental beliefs and the quality of their home environments. A diverse sample of 189 kindergarten children, their families, and their schools provided data on SES indices, parental beliefs, the quality of their home environment, and the children's DIAL-R concept knowledge. Multiple regression analyses revealed significant paths of influence from the distal SES indices to parental beliefs to home environment to the young children's cognitive functioning. These paths showed similarities and differences for mothers and fathers and for the lower and higher SES families.

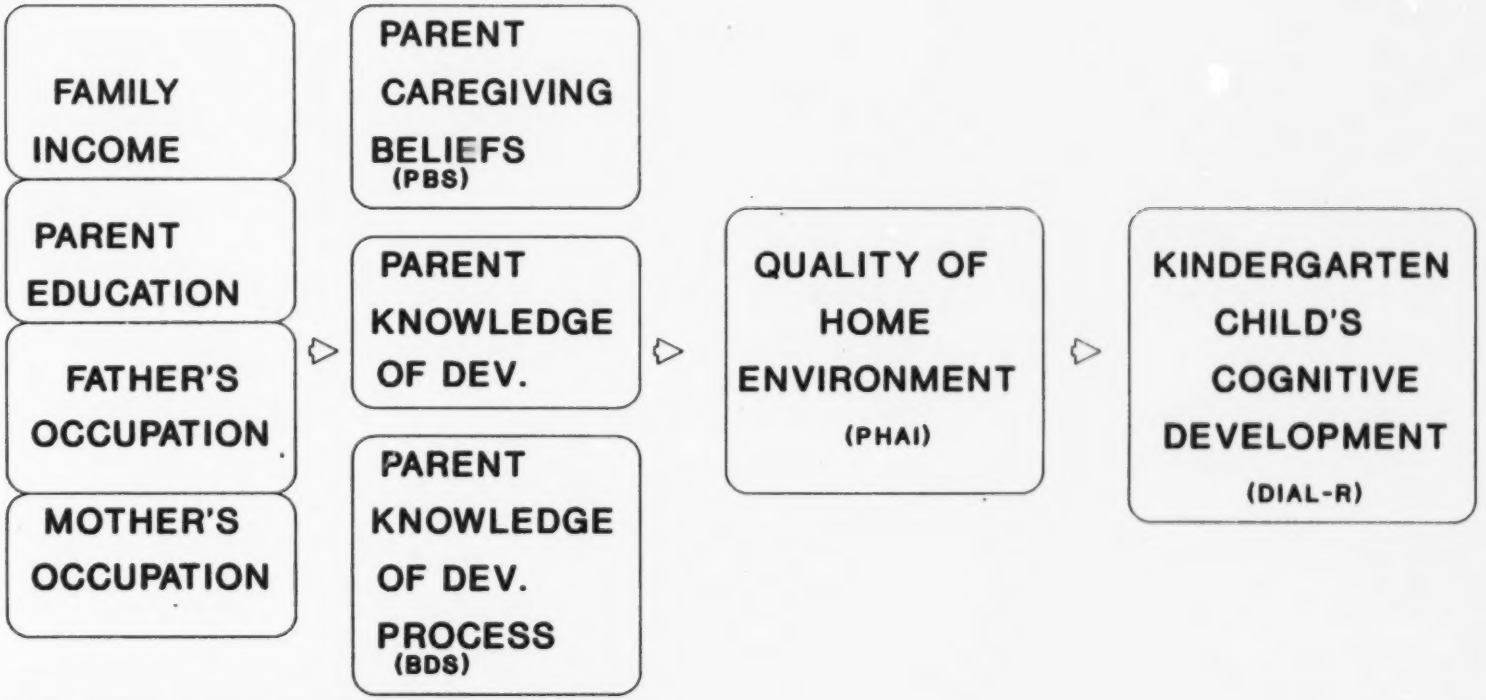
THEORETICAL MODEL



Kindergarten readiness: ecological analysis ... Poresky and Morris, SRCD, 1993

Theoretical Model

OPERATIONAL MODEL



PBS: Parent Belief Survey (Luster, 1985)

BDS: Beliefs about Development Scale (Luster's, 1991)

PHAI: Parent Home Assessment Index (Poresky, 1989)

DIAL(R): Developmental Indicators for the Assessment of Learning - Revised (Mardell & Goldenberg, 1990)

Operational Model

Sample:

A diverse sample of 189 kindergarten children (105 girls and 84 boys, average age = 5.64 years) and their parents was obtained by selecting the whole kindergarten enrollment in six public schools representing lower, middle, and upper SES neighborhoods as the research sample. Surveys were mailed to the parents of 254 children. Parents of seventy-four percent of the children's returned the surveys (n = 184 mothers and 127 fathers).

The sample included 44 single-mother families, 10 divorced families, and 135 two-parent families. Family incomes ranged from under $6,000 to over $70,000. The educational attainments of the 311 parents ranged from six parents who completed seventh grade or less to 60 parents with professional or graduate degrees. Occupational ranks (Hollingshead Four Factor Index of Social Status, 1975) ranged from no rank (unemployed) to nine (major professionals and executives). The families were divided into a lower SES group (family income < $25,000 and no college, n = 75) and a higher SES group (family income > $25,000 or some college, n = 114).

Instruments:

Demographic data:
- family income
- parents' education
- parents' occupation

Parental childrearing beliefs
- Parent Belief Survey (Luster, 1985)
  - Concern about spoiling
  - Verbal stimulation
  - Discipline and control
  - Floor freedom

Parent knowledge of child development
- Developmental milestones

Parent beliefs about developmental process
- Beliefs about Development Scale (Luster, 1991)
  - Maturational explanations
  - Learning explanations
  - Cognitive-developmental explanations

Quality of the home environment
- Parental Home Assessment Index (Poresky, 1989)

Children's DIAL-R concept score (Mardell & Goldenberg, 1990)
- Administered by the public school system

Instrument Reliability:

Instrument :	Cronbach alpha Fathers	Mothers
Parental childrearing beliefs		
Parent Belief Survey (Luster, 1985)		
Worry about spoiling	.61	.74
Verbal stimulation	.61	.72
Discipline and control	.60	.72
Floor freedom	.30	.30
Parent knowledge of child development		
Developmental milestones	.44	.52
Parent beliefs about developmental process		
Beliefs about Development Scale (Luster, 1991)		
Maturational explanations	.35	.36
Learning explanations	.50	.53
Cognitive-dev explanations	.48	.30
Quality of the home environment		
Parental Home Assessment Index (Poresky, 1989)	.71	.77

Descriptive Results
Gender x SES Means
(sig. effects)

Gender:	Mothers		Fathers	
SES:	Lower	Higher	Lower	Higher

Childrearing Beliefs:

Verbal Stimulation (gender, SES)

5.47	5.79	3.12	5.53

Spoiling (gender,SES)

2.63	1.95	3.12	2.40

Discipline (n.s.)

3.70	3.29	3.46	3.31

Parent Knowledge:

Developmental Milestones (SES)

2.76	3.21	2.81	3.17

Home Environment:

Parental Home Assessment Index (SES)

4.02	4.38	3.85	4.20

Multiple Regression Results

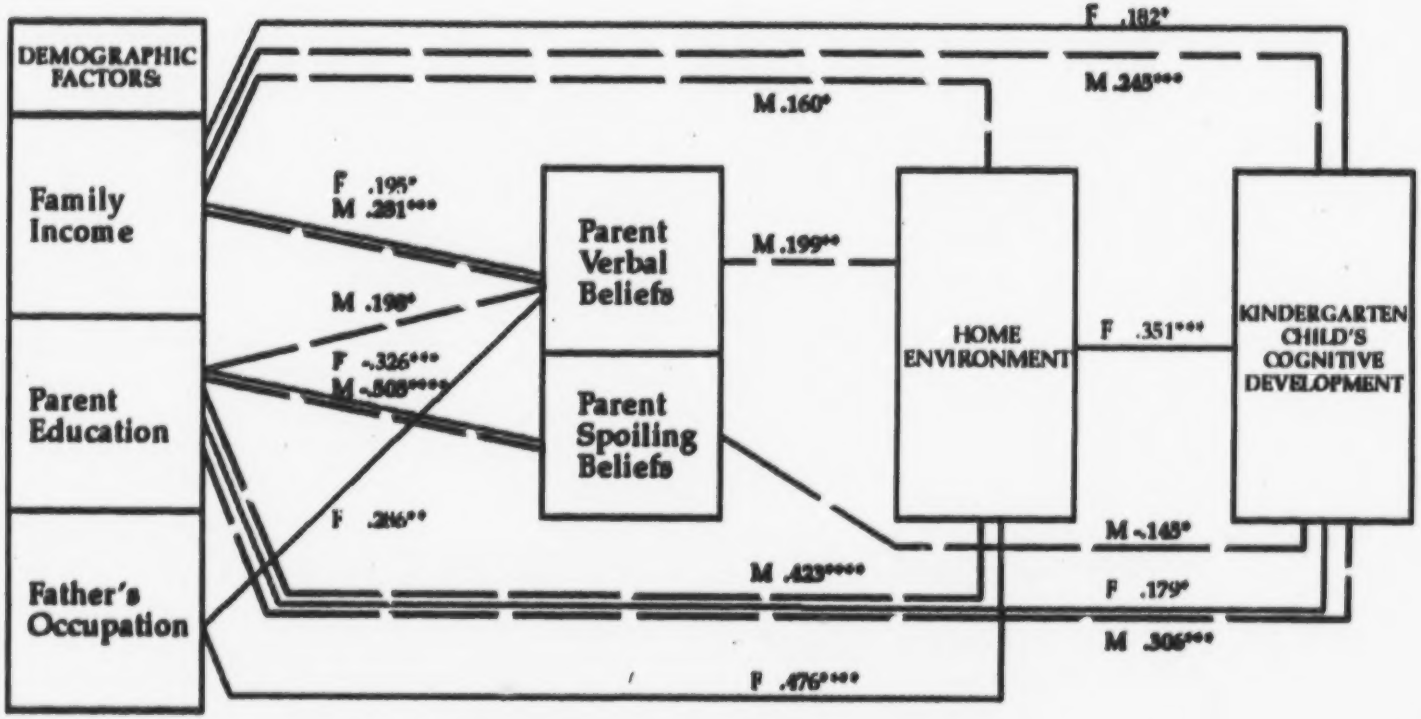


FIGURE 1. Mother and Father Paths for the Whole Sample

Sig Beta Wts.
+p <= .10
*p <= .05
**p <= .01
***p <= .001
****p <= .0001

The paths of influence of mother and father demographic and parental belief characteristics on home environment and cognitive development are shown for the whole sample.

Step-wise multiple regression computations were done in sequence. The significance levels of the beta weights are shown on the paths.

Mothers (M) — — -
Fathers (F) ———

Multiple Regression Results

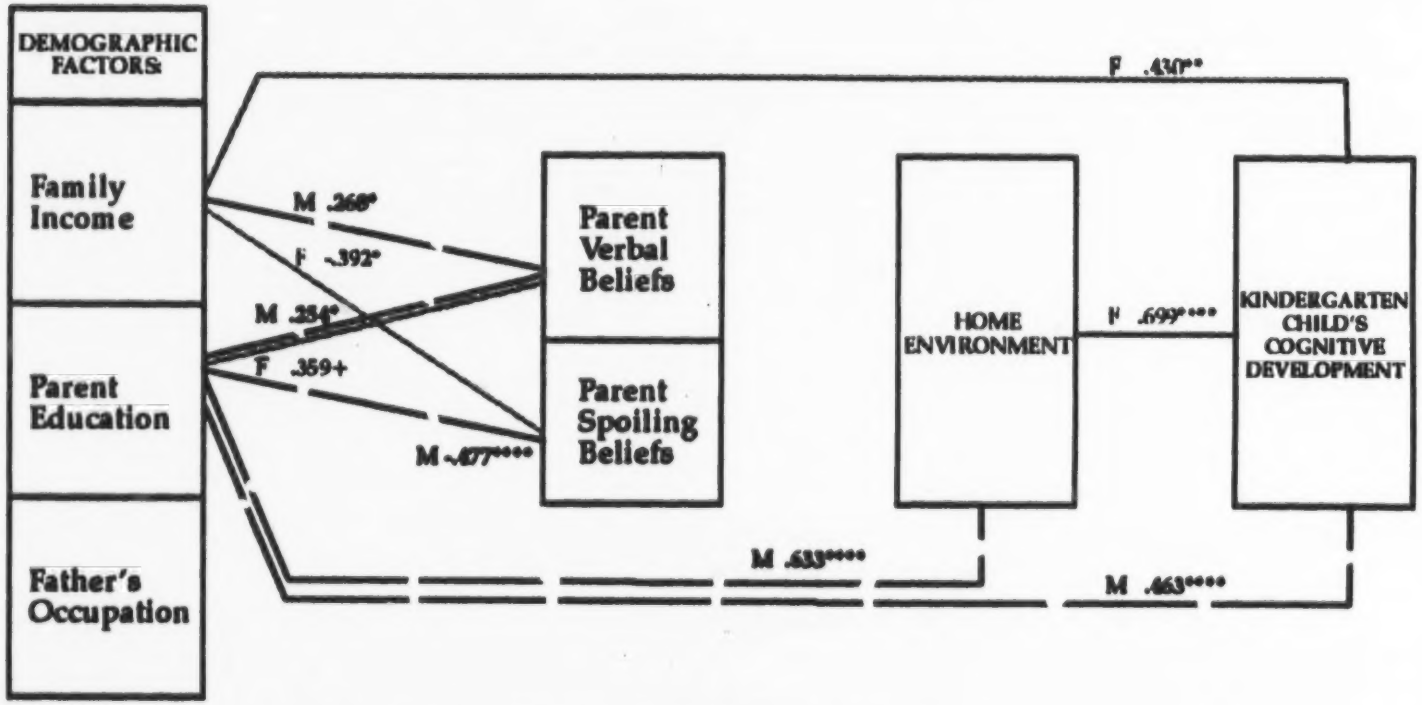


FIGURE 2. Mother and Father Paths for the Lower SES Group

Sig Beta Wts.
+p <= .10
*p <= .05
**p <= .01
***p <= .001
****p <= .0001

The paths of influence of mother and father demographic and parental belief characteristics on home environment and cognitive development are shown for the lower SES groups of mother and fathers.

Step-wise multiple regression computations were done in sequence. The significance levels of the beta weights are shown on the paths.

Mothers (M) — — ·
Fathers (F) ———

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Multiple Regression Results

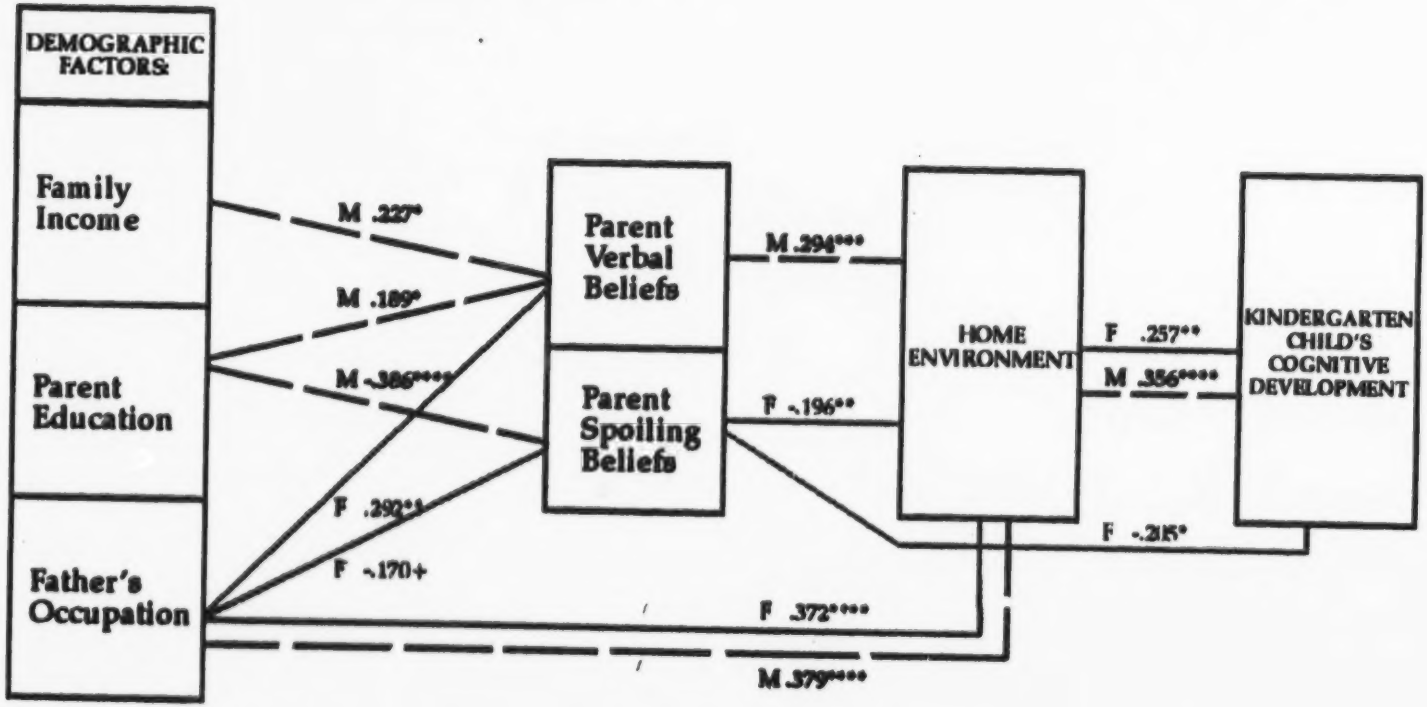

FIGURE 3. Mother and Father Paths for the Higher SES Group

Sig Beta Wts.
+p <= .10
*p <= .05
**p <= .01
***p <= .001
****p <= .0001

The paths of influence of mother and father demographic and parental belief characteristics on home environment and cognitive development are shown for the higher SES groups of mother and fathers.

Step-wise multiple regression computations were done in sequence. The significance levels of the beta weights are shown on the paths.

Mothers (M) — — —
Fathers (F) ———

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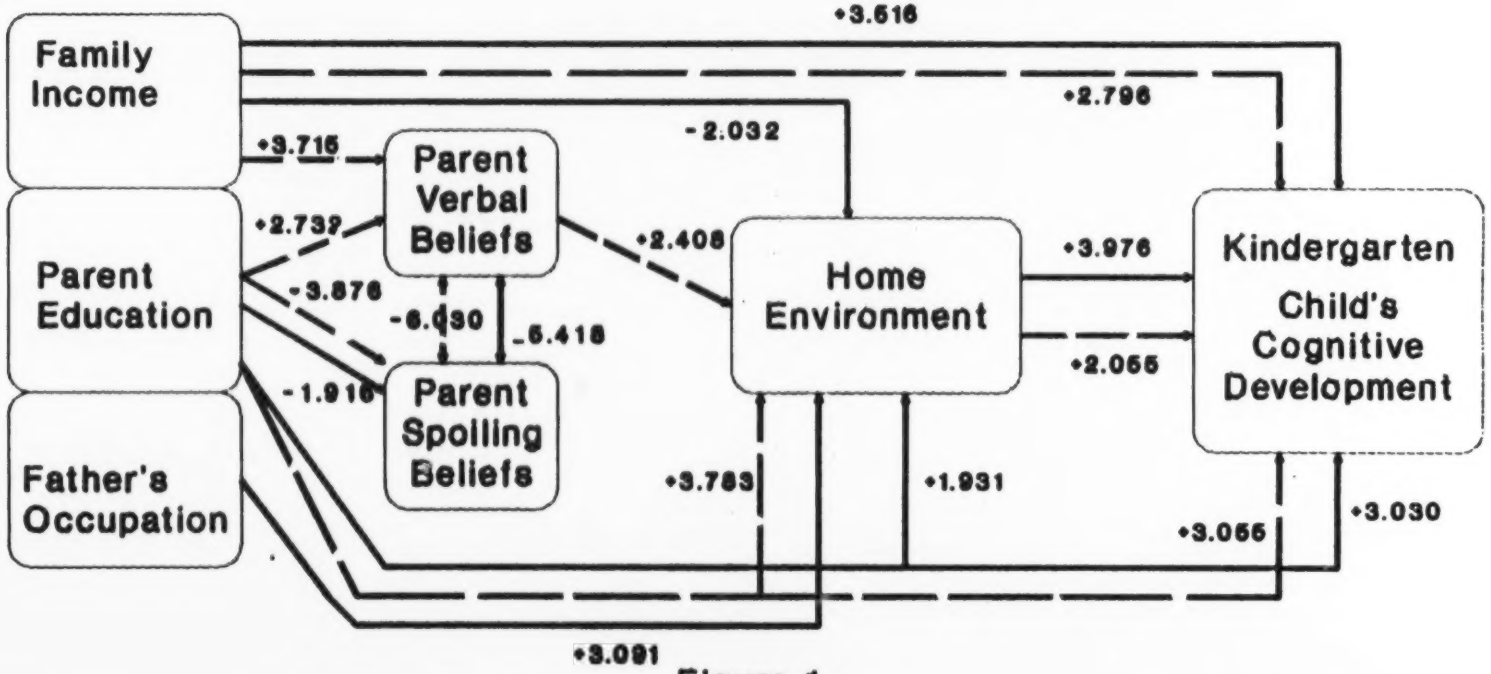

Figure 1

MOTHER AND FATHER PATHS FOR THE FULL SAMPLE

Lisrel used to analyze data. T-values are shown on diagram.

Mothers — — (N=184)

Fathers ——— (N=127)

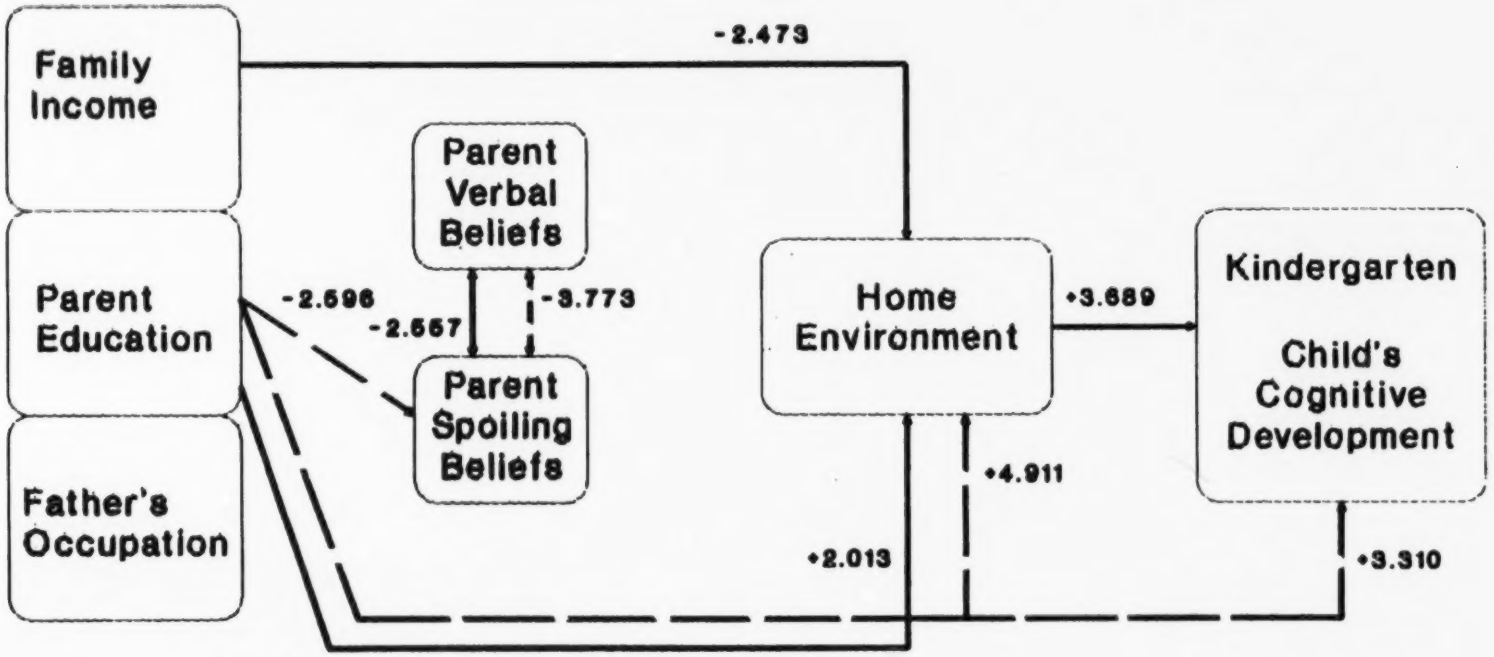

Figure 2

MOTHER AND FATHER PATHS FOR THE LOWER SES SAMPLE

Lisrel used to analyze data. T-values are shown on diagram.

Mothers — — (N=73)

Fathers ——— (N=26)

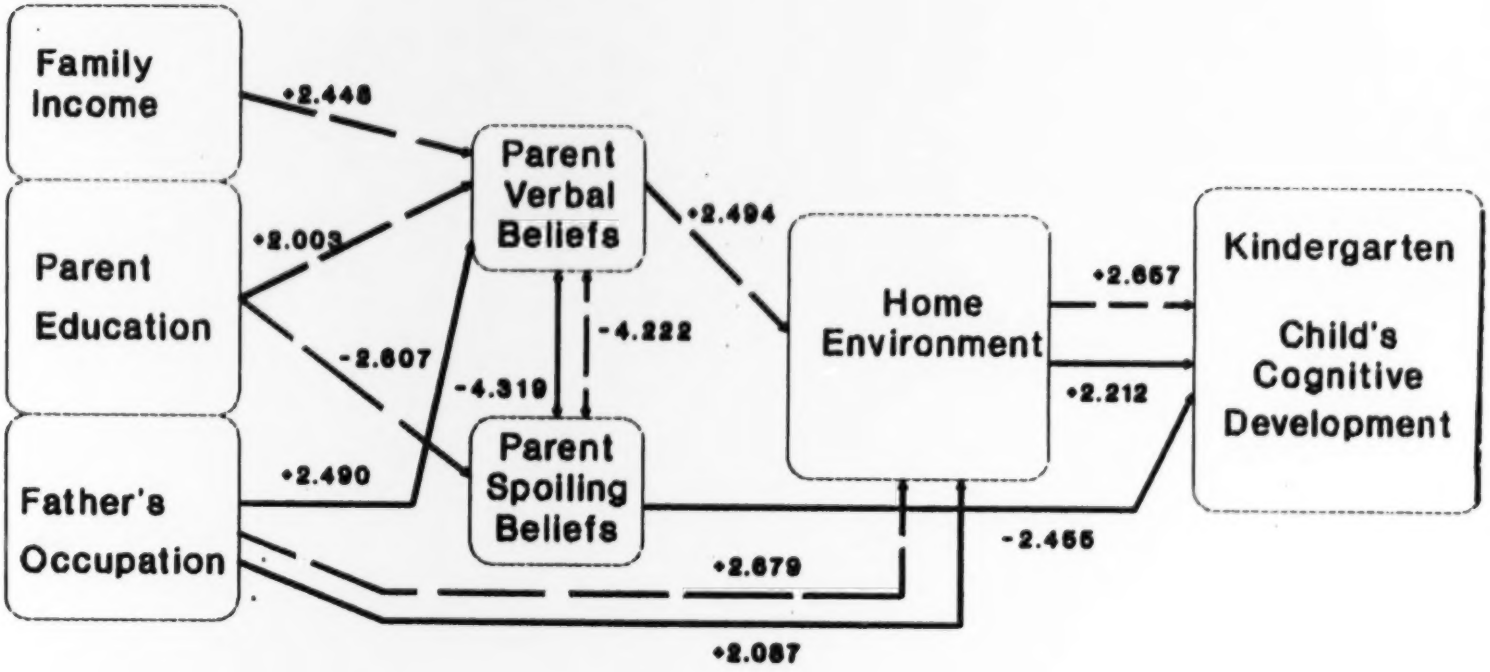

Figure 3

MOTHER AND FATHER PATHS FOR THE HIGHER SES SAMPLE

Lisrel used to analyze data. T-values are shown on diagram.

Mothers — — (N=111)

Fathers ——— (N=101)

Results:

There was a range in parents' beliefs about childrearing from developmentally appropriate to inappropriate, with the greatest variation in mothers' beliefs in the lower SES group. The higher SES mothers placed greatest emphasis on providing verbal stimulation and were least concerned about spoiling. The lower SES fathers placed the least emphasis on verbal stimulation and were the most concerned about spoiling. The children in the lower SES families had much lower DIAL-R concept normal curve equivalent (NCE) scores than the children in the upper SES families (44.03 vs. 56.17, $t = 5.98$, $p < .001$).

Cronbach alpha internal reliability coefficients were used to select the more reliable measures for the path analyses. Only measures with a Cronbach alpha over .6 were included in the path analyses.

The correlations between the ecological variables in the model supported the inference of a path of influence from demographic factors to parental beliefs to home environments to the children's cognitive development at the beginning of kindergarten. The correlations between demographic factors and home environments and cognitive development were typically larger and more significant for the lower than the higher SES families, which suggests a threshold effect for family income. This threshold effect suggests that once income and parents' education reach a sufficient level, then their impact on the quality of the home environment and the children's development is reduced.

Multiple regression and Lisrel analyses revealed significant paths of influence from the distal SES indices to parental beliefs to home environment to the young children's cognitive functioning for the full sample. These paths showed similarities and differences for mothers and fathers and for the lower and higher SES families.

For the lower SES families, the path analyses showed a strong influence of demographic factors, particularly parent education for mothers and family income for fathers, on the quality of their children's home environments and their children's cognitive development. For the higher SES families the influence of demographic factors in predicting the quality of their home environments and their children's cognitive development was reduced, and the influence of parental childrearing beliefs and the home environment was more apparent.

The path analyses revealed SES effects on children's cognitive development through the proximate parental belief and home environment elements, as well as additional influences from SES variables that were not mediated by the proximate parent belief elements. The effects of variables in one part of the SES spectrum do not necessarily generalize to the rest of the spectrum.

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